



VOL. II

# TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide,

State of sky,

Temperature of air,

“ surface of water,

“ at depth of fathoms,

“ of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Haul 962

The trawl hauls from 955 to 961 inclusive contained very nearly the same things.

# TEMPERATURE RECORD.

Instrument used,

Current number of observation, 962

Date, Aug. 26, 1881

Locality, Off Nausahom

Bearings, Moepecket Id. N E  $3/4$  E 1  $1/4$  m

Time of day, 3.10 P.M.; of tide, flood

State of sky, Clear

Temperature of air, 71

" surface of water, 68

" at depth of fathoms,

" of bottom, 66

Depth, in fathoms, 8

Nature of bottom, Blk md. + sd.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

963 Dredge

Contained no fish.

# TEMPERATURE RECORD.

Instrument used,

Current number of observation, 963

Date, Aug. 26, 1881

Locality, Off Nausahon

Bearings, Moepectet Id. SE  $\frac{1}{2}$  S 1 m

Time of day, 3.40 P.M.; of tide, flood

State of sky, Clear

Temperature of air, 70

" surface of water, 68

" at depth of fathoms,

" of bottom, 66

Depth, in fathoms,  $8\frac{1}{2}$

Nature of bottom, Blue md.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.

Haul 964 Dredge.

Aug. 29 while at anchor at Hyannis very large schools of young Chirostoma were seen alongside; young Poronotus was caught under jellyfish; a male Syngnathus with pouch full of young was captured alive. On putting it in water some of the young were freed and wriggled about quite briskly.



# TEMPERATURE RECORD.

Instrument used,

Current number of observation, 964

Date, Aug. 30, 1881

Locality, Off Chatham

Bearings, Chatham Lgts. ~~47~~ N N 1/2 W 5 m

Time of day, 7.50 a.m.; of tide, Ebb

State of sky, Clear

Temperature of air, 65

" surface of water, 61

" at depth of fathoms,

" of bottom, 55

Depth, in fathoms, 10

Nature of bottom, s. + gr.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

*[Faint handwritten notes]*

*[Faint stamp]*

REMARKS.

Haul 965 Dredge.

# TEMPERATURE RECORD.

Instrument used.

Current number of observation, 965

Date, Aug. 30, 1881.

Locality, Off Chatham.

Bearings, Chatham Lghts N 70° x 70° 6 m

Time of day, 8.15 a.m.; of tide, Ebb

State of sky,

Temperature of air,

“ surface of water.

“ at depth of fathoms,

“ of bottom.

Depth, in fathoms, 15-

Nature of bottom,

Direction of surface current.

Force of surface current.

Direction of bottom current.

Force of bottom current.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Haul 966

Dredge.

# TEMPERATURE RECORD.

Instrument used,

Current number of observation, 966

Date, Aug, 30, 1881,

Locality, off Chatham

Bearings, Chatham Lgt. H

$N \ N \times \ N \ \frac{1}{4} \ N$        $6 \ \frac{1}{4} \ m$

Time of day, 8.40 ; of tide, ebb

State of sky,

Temperature of air,

" surface of water,

" at depth of      fathoms,

" of bottom,

Depth, in fathoms, 16

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Haul 967 Dredge.

# TEMPERATURE RECORD.

Instrument used, \_\_\_\_\_

Current number of observation, 967

Date, Aug. 30, 1887

Locality, Off Chatham

Bearings, Chatham Lgt. H.

N N x N 1/4 N 6 3/4 m

Time of day, 8.50 ; of tide, \_\_\_\_\_

State of sky, \_\_\_\_\_

Temperature of air, \_\_\_\_\_

“ surface of water, \_\_\_\_\_

“ at depth of \_\_\_\_\_ fathoms, \_\_\_\_\_

“ of bottom, \_\_\_\_\_

Depth, in fathoms, 16

Nature of bottom, \_\_\_\_\_

Direction of surface current, \_\_\_\_\_

Force of surface current, \_\_\_\_\_

Direction of bottom current, \_\_\_\_\_

Force of bottom current, \_\_\_\_\_

Name of vessel, \_\_\_\_\_

To what service attached, \_\_\_\_\_

Name and rank of commanding officer, \_\_\_\_\_

Name and position of observer, \_\_\_\_\_

REMARKS.

968

Dredge

AF



# TEMPERATURE RECORD.

Instrument used,

Current number of observation, 968

Date, Aug. 30, 1887

Locality, Off Chatham

Bearings, Chatham Lgt. H.

$N \pi \times \pi \frac{3}{4} \pi$   $7 \frac{1}{4} m.$

Time of day, 9 a.m.; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms, 18

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Haul 969

Dredge

# TEMPERATURE RECORD.

Instrument used,

Current number of observation, 969

Date, Aug. 30, 1881.

Locality, Off Chatham

Bearings, Chatham Lgt. N.

N  $\times$  N  $\frac{3}{4}$  W 8 m.

Time of day, 9, 10 A. M. of tide.

State of sky,

Temperature of air,

“ surface of water,

“ at depth of fathoms,

“ of bottom,

Depth, in fathoms, 18

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Haul 970 Dredge

*Pleuronectes amer.* (med. size) 1  
Annelides, crustacea + a  
very small starfish in stomach.

# TEMPERATURE RECORD.

Instrument used, \_\_\_\_\_

Current number of observation, 970

Date, Aug. 30, 1881,

Locality, Off Chatham

Bearings, Chatham Light St.

N N N 3/4 N 6 m.

Time of day, 9.43 A.M.; of tide, \_\_\_\_\_

State of sky, \_\_\_\_\_

Temperature of air, \_\_\_\_\_

“ surface of water, \_\_\_\_\_

“ at depth of \_\_\_\_\_ fathoms,

“ of bottom, \_\_\_\_\_

Depth, in fathoms, 13

Nature of bottom, \_\_\_\_\_

Direction of surface current, \_\_\_\_\_

Force of surface current, \_\_\_\_\_

Direction of bottom current, \_\_\_\_\_

Force of bottom current, \_\_\_\_\_

Name of vessel, \_\_\_\_\_

To what service attached, \_\_\_\_\_

Name and rank of commanding officer, \_\_\_\_\_

Name and position of observer, \_\_\_\_\_

REMARKS.

Haul 971

Dredge

# TEMPERATURE RECORD.

Instrument used, \_\_\_\_\_

Current number of observation, 971

Date, Aug 30 1887

Locality, Off Chatham

Bearings, Chatham Lgt. H.

N 3/4 ~~N~~ N 4 1/4 m.

Time of day, 10.05 a.m.; of tide, \_\_\_\_\_

State of sky, \_\_\_\_\_

Temperature of air, 67

“ surface of water, 61.5

“ at depth of \_\_\_\_\_ fathoms,

“ of bottom, 54

Depth, in fathoms, //

Nature of bottom, \_\_\_\_\_

Direction of surface current, \_\_\_\_\_

Force of surface current, \_\_\_\_\_

Direction of bottom current, \_\_\_\_\_

Force of bottom current, \_\_\_\_\_

Name of vessel, \_\_\_\_\_

To what service attached, \_\_\_\_\_

Name and rank of commanding officer, \_\_\_\_\_

Name and position of observer, \_\_\_\_\_

## REMARKS.

Haul 972 Dredge

*Eumeces grammurus subbifurcatus* 1



# TEMPERATURE RECORD.

Instrument used,

Current number of observation, 972

Date, Aug. 30 1881

Locality, Off Chatham

Bearing, Chatham Lgt. H.

N  $\pi$  x  $\pi$   $7/8$   $\pi$   $7/2$  m.

Time of day, 10.18 a.m. of tide,

State of sky, Clear

Temperature of air, 67

" surface of water, 62

" at depth of fathoms,

" of bottom, 52

Depth, in fathoms, 16

Nature of bottom, gr., s. + st.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Haul 973 dredge.

# TEMPERATURE RECORD.

Instrument used,

Current number of observation, 973

Date, Aug. 30, 1881

Locality, Off Chatham

Bearings, Chatham Lgt. H.

N N N 6 3/4 m.

Time of day, 11.10 ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms, 17

Nature of bottom, gr., s. + st.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Haul 974 dredge.

# TEMPERATURE RECORD.

Instrument used,

Current number of observation. 974

Date, Aug. 30, 1881.

Locality, Off Chatham

Bearings, Chatham Lgt, N,  
N N W 1/2 W 6 1/2 m.

Time of day, 11, 30 ; of tide.

State of sky,

Temperature of air, 67

" surface of water, 62

" at depth of fathoms,

" of bottom, 51

Depth, in fathoms, 16

Nature of bottom, gr., s. + st.

Direction of surface current.

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer.

REMARKS.

Haul 975 Dredge.

# TEMPERATURE RECORD.

Instrument used, \_\_\_\_\_

Current number of observation, 975

Date, Aug. 30, 1881.

Locality, Off Chatham

Bearing, Chatham Lgt. St.  
N N W 1/4 W 6 1/4 m.

Time of day, 11.45 ; of tide, \_\_\_\_\_

State of sky, Clear

Temperature of air, 68

“ surface of water, 63

“ at depth of \_\_\_\_\_ fathoms,

“ of bottom, 52

Depth, in fathoms, 16

Nature of bottom, gr. s. + st.

Direction of surface current. \_\_\_\_\_

Force of surface current, \_\_\_\_\_

Direction of bottom current, \_\_\_\_\_

Force of bottom current, \_\_\_\_\_

Name of vessel, \_\_\_\_\_

To what service attached, \_\_\_\_\_

Name and rank of commanding officer, \_\_\_\_\_

Name and position of observer, \_\_\_\_\_

REMARKS.

Haul 976 Dredge.



# TEMPERATURE RECORD.

Instrument used,

Current number of observation, 976

Date, Aug. 30, 1881.

Locality, Off Chatham

Bearings, Chatham Lgt.

N 72 W 5/8 W 6 m

Time of day, noon ; of tide.

State of sky, Clear

Temperature of air, 69

" surface of water, 63

" at depth of fathoms,

" of bottom, 52

Depth, in fathoms, 16

Nature of bottom, gr s + sh

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Haul 977

Dredge

# TEMPERATURE RECORD.

Instrument used.

Current number of observation, 977.

Date, Aug. 30, 1881

Locality, Off Chatham

Bearings, Chatham Lgt.

NNN 5 m

Time of day, 12,20 ; of tide,

State of sky, Clear

Temperature of air, 70

" surface of water, 64

" at depth of fathoms,

" of bottom, 52

Depth, in fathoms, 17

Nature of bottom, gr. S. + sh.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Haul 978 Dredge

# TEMPERATURE RECORD.

Instrument used, \_\_\_\_\_

Current number of observation, \_\_\_\_\_

Date, \_\_\_\_\_

Locality, \_\_\_\_\_

Bearings, \_\_\_\_\_

Time of day, \_\_\_\_\_ ; of tide, \_\_\_\_\_

State of sky, \_\_\_\_\_

Temperature of air, \_\_\_\_\_

“ surface of water, \_\_\_\_\_

“ at depth of \_\_\_\_\_ fathoms, \_\_\_\_\_

“ of bottom, \_\_\_\_\_

Depth, in fathoms, \_\_\_\_\_

Nature of bottom, \_\_\_\_\_

Direction of surface current, \_\_\_\_\_

Force of surface current, \_\_\_\_\_

Direction of bottom current, \_\_\_\_\_

Force of bottom current, \_\_\_\_\_

Name of vessel, \_\_\_\_\_

To what service attached, \_\_\_\_\_

Name and rank of commanding officer, \_\_\_\_\_

Name and position of observer, \_\_\_\_\_

REMARKS.

Haul 979

Dredge

## TEMPERATURE RECORD.

Instrument used, \_\_\_\_\_

Current number of observation, \_\_\_\_\_

Date, \_\_\_\_\_

Locality, \_\_\_\_\_

Bearings, \_\_\_\_\_

Time of day, \_\_\_\_\_ ; of tide, \_\_\_\_\_

State of sky, \_\_\_\_\_

Temperature of air, \_\_\_\_\_

“ surface of water, \_\_\_\_\_

“ at depth of \_\_\_\_\_ fathoms,

“ of bottom, \_\_\_\_\_

Depth, in fathoms, \_\_\_\_\_

Nature of bottom, \_\_\_\_\_

Direction of surface current, \_\_\_\_\_

Force of surface current, \_\_\_\_\_

Direction of bottom current, \_\_\_\_\_

Force of bottom current, \_\_\_\_\_

Name of vessel, \_\_\_\_\_

To what service attached, \_\_\_\_\_

Name and rank of commanding officer, \_\_\_\_\_

Name and position of observer, \_\_\_\_\_

REMARKS.

980

Bredge



# TEMPERATURE RECORD.

Instrument used, \_\_\_\_\_

Current number of observation, \_\_\_\_\_

Date, \_\_\_\_\_

Locality, \_\_\_\_\_

Bearings, \_\_\_\_\_

Time of day, \_\_\_\_\_ ; of tide, \_\_\_\_\_

State of sky, \_\_\_\_\_

Temperature of air, \_\_\_\_\_

“ surface of water, \_\_\_\_\_

“ at depth of \_\_\_\_\_ fathoms, \_\_\_\_\_

“ of bottom, \_\_\_\_\_

Depth, in fathoms, \_\_\_\_\_

Nature of bottom, \_\_\_\_\_

Direction of surface current, \_\_\_\_\_

Force of surface current, \_\_\_\_\_

Direction of bottom current, \_\_\_\_\_

Force of bottom current, \_\_\_\_\_

Name of vessel, \_\_\_\_\_

To what service attached, \_\_\_\_\_

Name and rank of commanding officer, \_\_\_\_\_

Name and position of observer, \_\_\_\_\_

## REMARKS.

Trawl 981

Hippoglossoides	many-
Phycis chuss-	2-
Raja radiata	3
Cottus 18-spines	1
Triglopa pingalin	many
Liparis	2 species
Muraenoides	1
Zoarces	juv
Merluccius	"
Aspidophoroides	1
Sebastes	"
Raja eglanteria	

# TEMPERATURE RECORD.

Instrument used,  
Current number of observation, 981  
Date, Aug. 30, 1881  
Locality, Off Chatham  
Bearings, Chatham Lgt  
N. N. W. P. M. 16 m.  
Time of day, 2.10 ; of tide,  
State of sky, Clear  
Temperature of air, 65  
" surface of water, 63.5  
" at depth of fathoms,  
" of bottom, 49  
Depth, in fathoms, 41  
Nature of bottom, Sd + gravel  
Direction of surface current.  
Force of surface current,  
Direction of bottom current,  
Force of bottom current,  
Name of vessel,  
To what service attached,  
Name and rank of commanding officer,  
Name and position of observer,

## REMARKS.

Haul 982 Trawl

Raja radiata ad + juv  
 - eglantheria

Hippoglossoides

Tongolo Pingelin

Merluccius juv.

Liparis

# TEMPERATURE RECORD.

Instrument used.

Current number of observation, 982

Date, Aug. 30 1887

Locality, off Chatham

Bearings, Lat 41 36

Lon 69 35

Time of day, 2, 45 ; of tide,

State of sky, Clear

Temperature of air, 65

.. surface of water, 63.5

" at depth of fathoms,

" of bottom, 41.5

Depth, in fathoms, 40

Nature of bottom, S. + gr.

Direction of surface current.

Force of surface current.

Direction of bottom current.

Force of bottom current.

Name of vessel.

To what service attached.

Name and rank of commanding officer.

Name and position of observer.

## REMARKS.

Haul 983

Raja eplan.	large ♂	3
" rad.	juv	1
Pleuronectes amer.		1
Hippoglossids		2
Gadus morhua	juv.	
Merluccius	"	
Trisops		
Liparis		
Aspidopteroids		

# TEMPERATURE RECORD.

Instrument used,

Current number of observation, 983

Date, Aug 30 1881

Locality, Lat 41 30

Bearings, Lon 69 32 34

Time of day, 3.23 ; of tide,

State of sky, Clear

Temperature of air, 64.5

" surface of water, 64

" at depth of fathoms,

" of bottom, 42

Depth, in fathoms, 35

Nature of bottom, sd,

Direction of surface current.

Force of surface current.

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.

Haul 984

<i>Limanda ferrug</i>		3
<i>Hippofossides</i>		3
<i>Cottus</i> 18-sp		2
<i>Ammodytes</i>		1
<i>Liparis</i>		3
<i>Raja ocellata</i>	♂ + ♀	2



# TEMPERATURE RECORD.

Instrument used,

Current number of observation, 9824

Date, Aug. 30, 1887.

Locality, Lat. 41 31

Bearings, Lon 69 28 32

Time of day, 4.07 ; of tide,

State of sky, Clear

Temperature of air, 64

" surface of water, 63.5

" at depth of fathoms,

" of bottom, 41.5

Depth, in fathoms, 32

Nature of bottom, Sd & mud.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.

Haul 985.

Melanogrammus	juv.		1
Squalus acanthias	"		2
Paralichthys oblongus			many
Limanda ferruginosa			4
Cottus 18-spinosus			3
Hemirhamphus			2
Phycis tenuis			many
Merluccius			2
Raia ocellata?	♀	2	(jaws)
" laevis	juv.		3
" <del>sp.</del> erinacea?			1
Liparis	juv. in <u>Pecten</u>		1

# TEMPERATURE RECORD.

Instrument used.

Current number of observation, *985*

Date, *Sept. 7, 1880*

Locality, *Off No man's Land*

Bearings, *41° 00'*  
*70° 49'*

Time of day, *1.05 P.M.*; of tide,

State of sky, *Clear (slight haze)*

Temperature of air, *73*

" surface of water, *66*

" at depth of \_\_\_\_\_ fathoms,

" of bottom, *50*

Depth, in fathoms, *25*

Nature of bottom, *Sd.*

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.

Haul 986.

<i>Gadus morhua</i> juv.	2
<i>Paralichthys oblongus</i>	9
<i>Limanda ferruginea</i>	9
<i>Phycis tenuis</i>	22
<i>Goarces anguillaris</i>	1
<u>Raja</u> 2 black ocelli <u>laevis</u> ?	1
<i>Raja laevis</i> ? juv.	2
<i>Cottus</i> 18-spine	2
<i>Merluccius</i>	2

# TEMPERATURE RECORD.

Instrument used, \_\_\_\_\_

Current number of observation, *986*

Date, *Sept. 7, 1881.*

Locality, *110° 55'*

Bearings, *70° 48'*

Time of day, *2 PM* ; of tide, \_\_\_\_\_

State of sky, *Clear*

Temperature of air, *73*

“ surface of water, *67*

“ at depth of \_\_\_\_\_ fathoms,

“ of bottom, *49*

Depth, in fathoms, *27*

Nature of bottom, *sd*

Direction of surface current, \_\_\_\_\_

Force of surface current, \_\_\_\_\_

Direction of bottom current, \_\_\_\_\_

Force of bottom current, \_\_\_\_\_

Name of vessel, \_\_\_\_\_

To what service attached, \_\_\_\_\_

Name and rank of commanding officer, \_\_\_\_\_

Name and position of observer, \_\_\_\_\_

## REMARKS.

Haul 987 Rake Dredge

Physic tenuis	juv.	1
Cottus 18-spin.	very juv.	4 <del>2</del>
Hippoglossoides?	" "	1

# TEMPERATURE RECORD.

Instrument used, \_\_\_\_\_  
Current number of observation, 987  
Date, Sept. 7, 1881.  
Locality, Off Roman's Ld.,  
Bearings,  $40^{\circ} 54'$   
 $70^{\circ} 48' 30''$   
Time of day, 2.28 P.M. of tide,  
State of sky, Clear  
Temperature of air, 73  
" surface of water, 67  
" at depth of \_\_\_\_\_ fathoms,  
" of bottom, 49  
Depth, in fathoms, 27  
Nature of bottom, sd.  
Direction of surface current, \_\_\_\_\_  
Force of surface current, \_\_\_\_\_  
Direction of bottom current, \_\_\_\_\_  
Force of bottom current, \_\_\_\_\_  
Name of vessel, \_\_\_\_\_  
To what service attached, \_\_\_\_\_  
Name and rank of commanding officer, \_\_\_\_\_  
Name and position of observer, \_\_\_\_\_

REMARKS.

Haul 988 Rake Dredge



# TEMPERATURE RECORD.

Instrument used.

Current number of observation, 988

Date, Sept. 7, 1881.

Locality, off Norman's Ld.

Bearings,  $40^{\circ} 49' 30''$   
 $70^{\circ} 47'$

Time of day, 3.30 P.M. of tide,

State of sky, Clear

Temperature of air, 73

" surface of water, 67

" at depth of fathoms,

" of bottom, 49.5

Depth, in fathoms, 29

Nature of bottom, sd

Direction of surface current.

Force of surface current.

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.

Haul 989

<i>Lophius piscatorius</i>		1
<i>Phycis tenuis</i>		many
<i>Glyptocephalus cynog.</i> (medium)		1
<i>Paralichthys oblongus</i>		few many
<i>Raja laevis</i>	juv.	1
<i>Limanda ferruginea</i>		1
<i>Hippoglossoides</i>	juv.	1
<i>Cottus</i> 18- spm.	"	4

*Phycis tenuis* ? very juv. in Pecten  
tenuicostatus 5

# TEMPERATURE RECORD.

Instrument used,

Current number of observation, 989

Date, Sept. 7, 1881.

Locality, Off Norman's Id

Bearings,  $40^{\circ} 49'$   
 $70^{\circ} 47'$

Time of day, 3.56 PM; of tide,

State of sky, Clear

Temperature of air, 73

" surface of water, 67

" at depth of fathoms,

" of bottom, 49.5

Depth, in fathoms, 29

Nature of bottom, sd

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.

Haul 990

<i>Lophius pisc.</i>	1 lge. + 2 small	
<i>Enchelyopus cimbrius</i>		few
<i>Phycis tenuis</i>		many
<i>Glyptocephalus</i>		few
<i>Limanda feryng.</i>		few
<i>Paralichthys oblongus</i>		few
<i>Merluccius</i>	jun.	1
<i>Citharichthys arc.</i>		1

# TEMPERATURE RECORD.

Instrument used, \_\_\_\_\_  
Current number of observation, 990  
Date, Sept. 7, 1881.  
Locality, Off Norman's Ld  
Bearings, 110° 44'  
70° 47'  
Time of day, 5.05 P.M.; of tide, \_\_\_\_\_  
State of sky, Clear  
Temperature of air, 71.5  
" surface of water, 66  
" at depth of \_\_\_\_\_ fathoms,  
" of bottom, 47  
Depth, in fathoms, 33  
Nature of bottom, gn mud & sd  
Direction of surface current, \_\_\_\_\_  
Force of surface current, \_\_\_\_\_  
Direction of bottom current, \_\_\_\_\_  
Force of bottom current, \_\_\_\_\_  
Name of vessel, \_\_\_\_\_  
To what service attached, \_\_\_\_\_  
Name and rank of commanding officer, \_\_\_\_\_  
Name and position of observer, \_\_\_\_\_

REMARKS.

Haul 991      Trawl

No fish

# TEMPERATURE RECORD.

Instrument used, \_\_\_\_\_  
Current number of observation, 991  
Date, Sept. 7, 1881.  
Locality, Off Noman's Land  
Bearings, 40° 39'  
70° 46'  
Time of day, 6.05 PM; of tide, \_\_\_\_\_  
State of sky, Clear  
Temperature of air, 70  
" surface of water, 66  
" at depth of \_\_\_\_\_ fathoms,  
" of bottom, 47.5  
Depth, in fathoms, 33  
Nature of bottom, gn mud + sd  
Direction of surface current, \_\_\_\_\_  
Force of surface current, \_\_\_\_\_  
Direction of bottom current, \_\_\_\_\_  
Force of bottom current, \_\_\_\_\_  
Name of vessel, \_\_\_\_\_  
To what service attached, \_\_\_\_\_  
Name and rank of commanding officer, \_\_\_\_\_  
Name and position of observer, \_\_\_\_\_

## REMARKS.

Haul 992

Hippoglossoides	juv.	1
Limanda peruv.		2
Paralichthys oblongus		1
Phycis tenuis		many
Gadus macrocephalus	juv.	1
Liparis in <u>Pecten</u> <u>tenuis</u>		12+



# TEMPERATURE RECORD.

Instrument used,

Current number of observation, 992

Date, Sept. 7, 1881.

Locality, Off Noman's Land

Bearings,  $40^{\circ} 33'$   
 $70^{\circ} 45'$

Time of day, 7.35 A.M.; of tide,

State of sky, Clear

Temperature of air, 69

" surface of water, 65

" at depth of fathoms,

" of bottom, 48

Depth, in fathoms, 35

Nature of bottom, gn. mud + sd

Direction of surface current.

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.

Haul 993.

<i>Enchelyopus cimbrius</i>		8
<i>Melanogrammus</i>	large	1
<i>Lophius</i>		1
<i>Hippoglossoides</i>		few
<i>Merluccius</i>		1
<i>Phycis tenuis</i>		many
<i>Limanda ferrug.</i>		1
<i>Liparis</i>	from <i>Pecten tenuis</i>	15

# TEMPERATURE RECORD.

Instrument used, \_\_\_\_\_

Current number of observation, 993

Date, Sept. 7, 1881.

Locality, Off Roman's Land

Bearings, 140° 28'      70° 44'

Time of day, 8.24 PM; of tide, \_\_\_\_\_

State of sky, Clear

Temperature of air, 69

" surface of water, 65

" at depth of \_\_\_\_\_ fathoms,

" of bottom, 46.5

Depth, in fathoms, 37

Nature of bottom, md.

Direction of surface current, \_\_\_\_\_

Force of surface current, \_\_\_\_\_

Direction of bottom current, \_\_\_\_\_

Force of bottom current, \_\_\_\_\_

Name of vessel, \_\_\_\_\_

To what service attached, \_\_\_\_\_

Name and rank of commanding officer, \_\_\_\_\_

Name and position of observer, \_\_\_\_\_

## REMARKS.

Haul 994

✓ <i>Glyptocephalus</i>	many	
✓ <i>Macrurus Bairdii</i>	moderate	
✓ <i>Phycis Chesteri</i>		3
✓ <i>Synsphyrobranchus</i>		15
✓ <i>Centrosyllium</i>	♀	1
✓ <i>Coltunculus Towns</i>		1
✓ <i>Amitra</i>		2
✓ <i>Conoprogadid n.g.</i>		1
✓ <i>Sternoptychid</i>		1
✓ <i>Scopelus</i>		2
✓ <i>Lycodes Serwillii</i>		3
✓ <i>Coltunculus microps juv.</i>		1

# TEMPERATURE RECORD.

Instrument used,

Current number of observation, 994

Date, Sept. 8, 1887.

Locality, 2 1/4 m from Gay Head

Bearings, 104 1/2 m. 39° 40'  
71° 30'

Time of day, 4.50 am; of tide,

State of sky,

Temperature of air, 72

“ surface of water, 68

“ at depth of fathoms,

“ of bottom, 40.5

Depth, in fathoms, ~~351~~ 368

Nature of bottom, mud

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.

Haul 995 Light haul

✓ Scopelus	2+3
✓ Sternoptychid	4
✓ Stomias	1
Congrogadid n.g.	1

# TEMPERATURE RECORD.

Instrument used,

Current number of observation, 995

Date, Sept. 8, 1881.

Locality, SSW  $\frac{1}{4}$  N from Gay Head

Bearings,  $104\frac{1}{2}$  m  $39^{\circ} 40' 30''$   
 $71^{\circ} 31''$

Time of day, 6.32 ; of tide,

State of sky, Hazy + cloudy

Temperature of air, 72

" surface of water, 68

" at depth of fathoms,

" of bottom, 43.5

Depth, in fathoms, ~~345~~ 358

Nature of bottom, yellow mud + sd

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Haul 996 R. Dredge

nothing



# TEMPERATURE RECORD.

Instrument used,

Current number of observation.

996

Date,

Sept. 8, 1881.

Locality,

55 m  $\frac{1}{4}$  m from Gay Head

Bearings.

104  $\frac{1}{2}$  m

39° 41'      71° 31' 37"

Time of day, 7.35 a.m.; of tide,

State of sky,

Temperature of air,

" surface of water, 67.5

" at depth of fathoms,

" of bottom, 40

Depth, in fathoms, 346

Nature of bottom, y. m. sd

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.

Haul 997

✓ <i>Phycis Chesteri</i>		mod.
✓ <i>Lophius</i>	ad.	1
✓ <i>Glyptocephalus</i>		mod.
✓ <i>Phycis tenuis</i>		1
✓ <i>Macrurus Bairdii</i>		mod.
✓ <i>Halientera sentiosa</i>	juv.	1
✓ <i>Nemichthys</i>		2
✓ <i>Synophobranchus</i>		few
✓ <i>Scopelus</i>		1
✓ <i>Sternoptychid</i>		1
✓ <i>Amitra</i>		4
✓ <i>Lycodes Veriellii</i>		4

Phycis Chesteri stomachs were nearly all crammed with amphipods. Pyl. caeca of one examined 17, long + slender. Peritoneum black.

# TEMPERATURE RECORD.

Instrument used.

Current number of observation, 997

Date, Sept. 8, 1881.

Locality, 55 m 1/4 m from Gay Head

Bearings, 103 1/2 m  
29° 42' 71° 22'

Time of day, 9.03 A.M.; of tide,

State of sky,

Temperature of air, 75-

" surface of water, 67.5

" at depth of fathoms,

" of bottom, 40

Depth, in fathoms, ~~322~~ 335-

Nature of bottom, Yel. md

Direction of surface current.

Force of surface current,

Direction of bottom current,

Force of bottom current.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.

Haul 998.

✓ <i>Physis tenuis</i>		1
✓ " <i>Chesteri</i>		few
✓ <i>Merluccius</i>	large	6
✓ <i>Macrurus Bairdii</i>		few
✓ <i>Glyptocephalus</i>		"
✓ <i>Synaphobranchus</i>		"
✓ <i>Lycodes Vahliei</i> ?		1
✓ " <i>Sevillii</i>		2
✓ <i>Cottunaulus</i>		3
✓ <del><i>Amia</i></del> <i>Careproctus</i>		1
<i>Raia</i>	juv.	3
<i>Lycodes bighead</i>	"	1
✓ <i>Enchelyopus cimbrius</i>		1
✓ <del><i>Brama</i></del> ? <i>Hoplostet</i> very juv. (ming)		1
✓ <i>Sternopterygids</i>	(wings)	1

# TEMPERATURE RECORD.

Instrument used.

Current number of observation, 998

Date, Sept. 8, 1881.

Locality, 55 7/8 1/4 7/8 from Gay Head

Bearings, 102 1/2 m  
37° 40' 71° 30'

Time of day, 10.34 A.M. of tide.

State of sky, Hazy

Temperature of air, 74

“ surface of water, 68

“ at depth of fathoms,

“ of bottom, 40

Depth, in fathoms, ~~289~~ 302

Nature of bottom, Gn. md.

Direction of surface current.

Force of surface current.

Direction of bottom current.

Force of bottom current.

Name of vessel.

To what service attached.

Name and rank of commanding officer.

Name and position of observer.

## REMARKS.

Haul 999 R.-Dredge.

*Macurus Bairdii* juv. 1  
*Lycodes verillii* 1

# TEMPERATURE RECORD.

Instrument used, \_\_\_\_\_

Current number of observation, 999

Date, Sept. 8, 1881.

Locality, SSW 1/4 W from Gay Head

Bearings, 100 m  
39° 45' 13"  
71° 30'

Time of day, 11.48 a.m.; of tide, \_\_\_\_\_

State of sky, Hazy

Temperature of air, 73

“ -- surface of water, 68

“ at depth of \_\_\_\_\_ fathoms,

“ of bottom, 50 (?)

Depth, in fathoms, ~~256~~ 266

Nature of bottom, gn. md.

Direction of surface current, \_\_\_\_\_

Force of surface current, \_\_\_\_\_

Direction of bottom current, \_\_\_\_\_

Force of bottom current, \_\_\_\_\_

Name of vessel, \_\_\_\_\_

To what service attached, \_\_\_\_\_

Name and rank of commanding officer, \_\_\_\_\_

Name and position of observer, \_\_\_\_\_

## REMARKS.

Haul 1025

✓ <i>Phycis Chesteri</i>	great many
✓ <i>Merluccius</i>	8
✓ <i>Phycis tenuis</i>	1
✓ <i>Glyptocephalus</i>	few
✓ <i>Macrurus Bairdii</i>	many
✓ " <i>carminatus</i>	few
✓ <i>Lycodes Verrillii</i>	1
✓ <i>Nemichthys</i>	1
✓ <i>Haliutæa senticosa</i> juv.	1
✓ <i>Hoplostethus</i> "	1
Rais egg small	1



# TEMPERATURE RECORD.

Instrument used, \_\_\_\_\_

Current number of observation, 1025

Date, Sept. 8, 1881.

Locality, S.S.  $\pi$   $\frac{1}{4}$   $\pi$  from Gay Head

Bearings, 95 m  
 $\begin{matrix} 390 & 149 \\ 210 & 250 \end{matrix}$

Time of day, 1.05 P.M., ; of tide, \_\_\_\_\_

State of sky, Clear

Temperature of air, 70

“ surface of water, 69

“ at depth of \_\_\_\_\_ fathoms,

“ of bottom, 45-

Depth, in fathoms, ~~197~~ 216.

Nature of bottom, Gr. md.

Direction of surface current, \_\_\_\_\_

Force of surface current, \_\_\_\_\_

Direction of bottom current, \_\_\_\_\_

Force of bottom current, \_\_\_\_\_

Name of vessel, \_\_\_\_\_

To what service attached, \_\_\_\_\_

Name and rank of commanding officer, \_\_\_\_\_

Name and position of observer, \_\_\_\_\_

## REMARKS.

Haul 1026

<del>Phycis Chesteri</del>	<del>great</del>	<del>many</del>	
<del>Merluccius</del>			<del>8</del>
<del>Phycis tenuis</del>			<del>1</del>
<del>Glyptocephalus</del>			<del>few</del>
<del>Macrurus Bairdii</del>			<del>many</del>
<del>" carminatus</del>			<del>few</del>
<del>Lycodes verrillii</del>			<del>1</del>
<del>Hemichthys</del>			<del>1</del>
<del>Halienteres senticosus</del>	<del>juv.</del>		<del>1</del>
<del>Brama ?</del>	<del>juv.</del>		<del>1</del>
<del>Raja egg</del>	<del>small</del>		<del>1</del>

✓ Phycis Chesteri			many
✓ Macrurus Bairdii ?	juv.		4
✓ " carminatus			4
✓ Scopelus			6
✓ Hoplostethus	juv.		2
✓ Merluccius			4

# TEMPERATURE RECORD.

Instrument used,  
Current number of observation, 1026  
Date, Sept. 8, 1881.  
Locality, 55 N 1/4 N from Gay Head  
Bearings, 93 1/2 m  
39° 50' 30"  
71° 28'  
Time of day, 2.55 P.M.; of tide,  
State of sky, Clear  
Temperature of air, 69  
" surface of water, 69  
" at depth of fathoms,  
" of bottom, 47.5  
Depth, in fathoms, ~~175~~ 182  
Nature of bottom, gn. md.  
Direction of surface current,  
Force of surface current,  
Direction of bottom current,  
Force of bottom current,  
Name of vessel,  
To what service attached,  
Name and rank of commanding officer,  
Name and position of observer,

## REMARKS.

Haul 1027

✓ <i>Phycis chuss</i>		2
✓ <i>Raja erinacea</i>	♂	1

# TEMPERATURE RECORD.

Instrument used, \_\_\_\_\_

Current number of observation, *1027*

Date, *Sept. 14, 1881*

Locality, \_\_\_\_\_

Bearings, *Lat. 40° 00' N.*

*Lon. 69° 19' W.*

Time of day, *7.23 a.m.*; of tide, \_\_\_\_\_

State of sky, *Clear*

Temperature of air, *61*

" surface of water, *65*

" at depth of *5* fathoms, *66*

" of bottom, *48.5*

Depth, in fathoms, *93*

Nature of bottom, *fine sand*

Direction of surface current, \_\_\_\_\_

Force of surface current, \_\_\_\_\_

Direction of bottom current, \_\_\_\_\_

Force of bottom current, \_\_\_\_\_

Name of vessel, \_\_\_\_\_

To what service attached, \_\_\_\_\_

Name and rank of commanding officer, \_\_\_\_\_

Name and position of observer, \_\_\_\_\_

## REMARKS.

Haul 1028,

✓ <i>Synophobranchus pinnatus</i>	45
✓ <i>Macrurus Bairdii</i> (all juv. but one)	19
✓ <i>Coryphaenoides</i> (28926)	1
✓ <i>Lycodes brevillus</i>	1
✓ " short snout	1
✓ <i>Phycis Chesteri</i>	7
✓ <i>Leptocephalus oproglossus</i> 2 juv. + 1 med.	
✓ <i>Scopelus</i> (in wings)	1

*Phycis Chesteri* pyl. caeca - 13, 13  
*Coryphaenoides* stomachs - amphipods  
*Synophobranchus* ♀ full of eggs

# TEMPERATURE RECORD.

Instrument used,

Current number of observation, 1028

Date, Sept. 14, 1881,

Locality,

Bearings, N. lat.  $39^{\circ} 57'$

W. lon.  $69^{\circ} 17'$

Time of day, 9.01 a.m.; of tide,

State of sky, Clear

Temperature of air, 66.5

" surface of water, 66

" at depth of 5 fathoms, 66

" of bottom, 41

Depth, in fathoms, 410

Nature of bottom, Yellow mud

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.

Haul 1029

✓ Haloporphyrus viola	juv.	3
✓ Coryphaenoides		2
✓ Macrurus Bairdii	mostly juv.	52
✓ Phycis Chestni		14 <del>13</del>
✓ Synaphobranchus		17
✓ Merluccius	large	1
✓ Scopelus		4+1
✓ Centroscyllium	juv.	1
✓ Cottunculus tomentosus	"	2
✓ Glyptocephalus	6 j. + 8 med.	
✓ Lycodes Verrillii		1
✓ " short head		1
✓ Sternoptychid		2



# TEMPERATURE RECORD.

Instrument used,

Current number of observation, 1029

Date, Sept. 14, 1881.

Locality,

Bearings, N. lat.  $39^{\circ} 57'$

W. lon.  $69^{\circ} 16'$

Time of day, 12.13 noon; of tide,

State of sky, Clear

Temperature of air, 72

" surface of water, 68

" at depth of 5 fathoms, 66

" of bottom, 40

Depth, in fathoms, 45-8

Nature of bottom, Yellow mud

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

# REMARKS.

Lined area for handwritten notes.